

Serial No. 10/776,763

Office Action Dated: 11/04/2005

Response to Office Action Dated: 02/06/06

REMARKS

This Request for Reconsideration is submitted in reply to the Final Office Action, dated November 4, 2005, in which the Examiner:

rejected claims 1, 3-9, 12-14, 17-20 and 22-25 under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 6,738,044 to Holzrichter et al.; and

indicated claims 2, 10, 11, 15, 16 and 21 would be allowable if rewritten in independent form.

Applicants respectfully traverse the rejections below. Claims 1-25 are currently pending. Claims 1, 19 and 25 are independent claims.

In the Response to Office Action, dated October 27, 2005 (previous Response), Applicants separately traversed and argued the patentability of independent claims 1, 19 and 25. In the Final Office Action, the Examiner repeated, verbatim, his claim rejections from the July 27, 2005 Office Action, and, under "Response to Arguments," stated:

Applicant argues in the arguments that the prior art does not show 'the pulse train including observability evaluation is satisfactory'. Holzrichter discloses 'the pulse train including observability evaluation is satisfactory'.... (Final Office Action, p. 10.)

While Applicants certainly do not concede that Holzrichter *does* show "the pulse train including observability evaluation is satisfactory," Applicants respectfully submit that this single argument addressed by the Examiner is an inadequate rebuttal of Applicants' arguments regarding the patentability of claims 1, 19 and 25, at least because:

1. nowhere in the previous Response did Applicants actually make the cited argument;
2. the recitation, "the pulse train including observability evaluation is satisfactory," does not appear in claims 1, 19 or 25; and
3. the Examiner has not substantively addressed *any* of Applicants' actual arguments.

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For the substance of Applicants' arguments, Applicants refer the Examiner to pages 14-17 of the previous Response, and briefly reiterate (and to some extent, amplify) those arguments below.

Regarding the cited art, Holzrichter discloses measuring a relative distance traveled by a locator unit 11. (See, for example, col. 8, line 66 to col. 9, line 2.) Significantly, measuring this relative distance does not involve measuring a pulse transit-time. "Any pulse transit time-based method for distance measurement requires knowledge of the time elapsed between the transmission of the wave pulse and receiving the wave pulse reflected at the target: pulse transit time (PTT)." (Applicants' Specification, paragraph [0003].) Holzrichter, however, discloses using pattern recognition, based on signal amplitude-pattern information, to determine a relative distance traveled, as illustrated in Figure 2.

For various reasons, Holzrichter discloses using two or more EM sources to determine the position of a locator unit (e.g. Figure 1; sensors 13 and 14, sending EM waves 25 and 27, and locator unit 11). To minimize interference between the two or more sensors, the locator unit includes an antenna with a switching circuit (illustrated in Figure 7) that changes the reflectivity of the antenna, thus modulating the *reflected* EM wave. (See, for example, col. 15, lines 36-63; see also, claim 55.) Significantly, Holzrichter does not show or disclose, during the determination of the relative distance, modulation of the *sent* EM waves.

Regarding Holzrichter as applied to Applicants' claim 1, claim 1 recites, among other things, a pulse transit-time based method for distance measurement, and several steps thereof. Applicant maintains that, whatever Holzrichter may show or disclose, Holzrichter simply fails to show or disclose pulse transit-time distance measurement (as discussed above), or any method for such measurement.

Accordingly, Holzrichter does not properly anticipate either claim 1, or its dependent claims 2-18.

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Regarding Holzrichter as applied to Applicants' claim 19, claim 19 recites, an apparatus for distance measurement comprising, in part, means for modulating said [pattern of] sent pulses to minimize the effect of measured distance distortion during a measuring process. Insofar as Holzrichter shows or discloses *any* means for minimizing the effect of measured distance distortion, Holzrichter does not show a means for modulating a pattern of sent pulses (as discussed above). On the contrary, Holzrichter discloses that it is desirable that "...mode-shape effects do not distort the homodyne spatial pattern in the workplace, on which the methods depend." (Col. 15, lines 46-48; emphasis added.)

Accordingly, Holzrichter does not properly anticipate either claim 19 or its dependent claims 20-24.

Regarding Holzrichter as applied to Applicants' claim 25, claim 25 recites, in part, an apparatus for distance measurement comprising, in part, means for evaluating observability of pulse transit time through analysis of patterns of said sent and received pulses. Whether or not Holzrichter analyzes patterns of sent and received pulses, such an analysis does not show or disclose means for evaluating observability of pulse transit time, at least because Holzrichter's relative distance measurement is not based on a measurement of pulse transit time, but instead is based on the patterns, themselves (as discussed above).

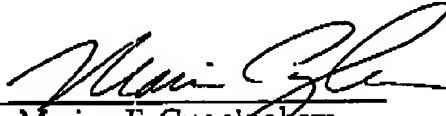
Accordingly, Holzrichter does not properly anticipate claim 25.

As the Examiner has not yet responded to Applicants' arguments maintaining the patentability of claims 1-25, Applicants respectfully request the finality of the outstanding Office Action be withdrawn. Applicants respectfully submit that claims 1-25 are, in fact, allowable for at least the reasons stated above, and accordingly request that claims 1-25 be passed to issue. In the event the Examiner sees fit to maintain any or all of the rejections, Applicants respectfully request that the Examiner include in any subsequent Action "...a rebuttal of any arguments raised in the applicant's reply." MPEP 706.07.

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Applicants believe that no fees are due in connection with this Response.
If any fees are deemed necessary, please charge them to Deposit Account No. 13-0235.

Respectfully submitted,

By 
Marina F. Cunningham
Registration No. 39,419
Attorney for Applicants

McCormick, Paulding & Huber LLP
CityPlace II
185 Asylum Street
Hartford, Connecticut 06103-3402
(860) 549-5290